



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,367	12/03/2003	Robert C. Becker	P02,0126 01 H0003414	7123
128	7590	12/02/2004	DIV	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			EXAMINER NGUYEN, KIMBERLY D	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,367	Applicant(s) BECKER ET AL.	
	Examiner Kimberly D. Nguyen	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/4/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgement is made of Response to Election/Restriction filed 20 September 2004, which Figure 2, claims 25-75, has been elected by applicants. However, the examiner respectfully disagrees with applicants' election of claims, which includes claims 25-75. Figure 2 is drawn to a method of conserving battery power in an RFID tag having a battery, a receiver, and a transmitter, including duty cycling the receiver so that the receiver is turned on during ON times of duty cycles and so that the receiver is turned off during OFF times of the duty cycles, etc. to conserve power within the RFID tag, which is set forth in claims 37-51. Accordingly, claims 37-51 have been considered and, claims 25-36 and 52-75 have been considered as a non-elected claims as set forth in this Office action.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 37-51 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12 and 28 of U.S. Patent No. 6,726,099.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claimed invention is fairly broader recitation of the '099 patent. For

Art Unit: 2876

example, in claim 40 of the present claimed invention and claim 12 of '099 patent, the

Applicants claim:

“A method of conserving battery power in an RFID tag having a battery, a receiver, and a transmitter, the method comprising: duty cycling the receiver... receiving a frequency from a tag reader; and transmitting data to the reader...”, whereas in '099 patent, the Applicants claim “A method of communicating information between an RFID tag and first and second readers, the method comprising: controlling a first transceiver of the RFID tag... controlling a second transceiver of the RFID tag...” (see col. 11, lines 24-37); and

“wherein communications between the RFID tag and the tag reader are conducted within a message frame, wherein the message frame comprises a header and a time slot, wherein the header is transmitted by the tag reader and contains the frequency wherein the time slot comprises a header portion and a data portion, wherein the header portion is transmitted by the tag reader and also contains the frequency, and wherein the transmitting of data comprises transmitting data from the RFID tag to the tag reader in the data portion of the time slot.”, whereas in the '099 patent the Applicants claim “wherein at least some communications between the RFID tag and the first reader are conducted in message frames, wherein each of the message frame comprises a header and a time slot, wherein the header is transmitted by the first reader and contains a frequency, wherein the time slot comprises a header portion and a data portion, wherein the header portion is transmitted by the first reader and also contains the frequency, and wherein the controlling of a first transceiver comprises controlling the first transceiver so as to transmit data from the RFID tag to the first reader in the data portion of the time slot at the frequency.” (col. 12, lines 17-28)

Thus, with respect to the above discussion, it would have been obvious to an artisan at the time the invention was made to encompass the claimed invention with the teachings of '099 patent (e.g., claims 1 and 12) in order to employ a communication system between the RFID tag and the reader using the message frames as taught in '099 patent.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 37-39 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Tuttle et al. (US 6,220,516; hereinafter "Tuttle").

Re claims 37, 42-43: Tuttle teaches a method of conserving battery power in a RFID tag having a battery, a receiver, and a transmitter (col. 4, lines 28-33; col. 5, lines 5-10), the method comprising:

duty cycling the receiver so that the receiver is turned on during ON (active/waked mode) times of duty cycles and so that the receiver is turned off during OFF (passive/sleep mode) times of the duty cycles ("... the term "passive" refers only to the fact that no battery is used, whereas the electrical circuitry on the IC is indeed active while being powered by the RF coil and capacitor combination." (col. 3, lines 50-53) (col. 4, lines 28-41));

during the ON (active/waked mode) times of the receiver, receiving a frequency from a tag reader/interrogator ("When a received signal has substantial in-band energy as detected by

Art Unit: 2876

wake-up circuit 12, control logic 15 enables receiver 13 for receiving and decoding a radio signal on antenna 4 and 5.” (col. 6, lines 26-29)) (col. 6, lines 8-59); and

transmitting data to the reader at the frequency (“... control logic 15 reads transmit data from memory 16 and enables transmitter 14 for sending the transmit data as a second radio signal on antenna 4 and 5.” (col. 6, lines 35-38)) (figs. 1A-1B and 2; col. 6, line 8 through col. 7, line 67).

Re claims 38-39, 45-49: Tuttle teaches receiving a hop sequence during ON times, wherein the frequency is a constituent of the hop sequence (col. 7, lines 25-31) (figs. 1A-1B and 2; col. 6, line 8 through col. 7, line 67).

Re claims 44: Tuttle teaches an RFID tag comprising a transmitter (14 in figs. 1A-1B) arranged to transmit first data to a tag reader (“... control logic 15 reads transmit data from memory 16 and enables transmitter 14 for sending the transmit data as a second radio signal on antenna 4 and 5.” (col. 6, lines 35-38)); a receiver (13 in figs. 1A-1B) arranged to receive second data from the tag reader (“When a received signal has substantial in-band energy as detected by wake-up circuit 12, control logic 15 enables receiver 13 for receiving and decoding a radio signal on antenna 4 and 5.” (col. 6, lines 26-29)) (col. 6, lines 8-59); a battery (2 and 3 in fig. 1A, and 20 in fig. 1B); a switch coupling the battery to the receiver (col. 4, lines 27-32); and a controller arranged to operate the switch in a duty cycle such that power is provided by the battery to the receiver during ON (active/waked mode) times of the duty cycle and such that power from the battery to the receiver is interrupted during OFF (passive/sleep mode) times of the duty cycle (figs. 1A-1B and 2; col. 6, line 8 through col. 7, line 67).

Art Unit: 2876

Allowable Subject Matter

6. Claims 40-41 and 50-51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The record of prior art fails to teach the communications between the RFID tag and the tag reader are conducted within a message frame, wherein the message frame comprises a header and a time slot, wherein the header is transmitted by the tag reader and contains the frequency wherein the time slot comprises a header portion and a data portion, wherein the header portion is transmitted by the tag reader and also contains the frequency, and wherein the transmitting of data comprises transmitting data from the RFID tag to the tag reader in the data portion of the time slot.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly D. Nguyen whose telephone number is 571-272-2402. The examiner can normally be reached on Monday-Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

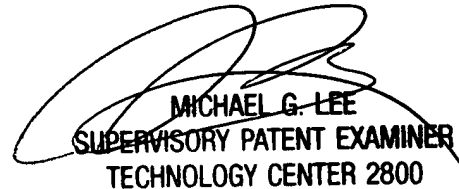
Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KDN

19 November 2004



MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800